

# **MID-TERM EXAMINATION**

**1998 HUMAN BEHAVIOR COURSE**

***Friday 20 March 1998***  
***0830***

***122 Questions***

***Record Answers on Answer Sheet***

***Name***\_\_\_\_\_ ***Student Number***\_\_\_\_\_

**Directions:** Choose the one best answer.

1. Which of these terms is most closely associated with the following statement/definition:

*“The belief that social and psychological factors play the etiologic role in the predisposition, inception, and maintenance of many diseases, and that specific personality characteristics are associated with specific disease states?”*

- A. Reductionistic Medicine
- B. Phenomenological Medicine
- C. Psychosomatic Medicine
- D. Consultation-Liaison Psychiatry
- E. Sociobiological Psychiatry

2. Which of the following is a true statement regarding classic conditioning?

- A. The more frequently a conditioned stimulus and an unconditioned stimulus are paired, the weaker the conditioned response becomes.
- B. Conditioned responses can be “unlearned”, but it is much more difficult to unlearn a conditioned response than it is to learn one.
- C. The less frequently a conditioned stimulus and an unconditioned stimulus are paired, the better a subject will remember the learning later on.
- D. An “extinguished response” is always completely forgotten.
- E. Conditioning is fastest when the conditioned stimulus is presented immediately before the unconditioned response.

3. What functional brain area links one mode of sensory experiences with another (e.g., linking a song from your high school years with memories of a girlfriend or boyfriend of the time)?

- A. Papez Circuit.
- B. Unimodal Association Area.
- C. Amygdala.
- D. Heteromodal Association Area.
- E. Supplementary Motor Area.

**Directions: Choose the one best answer.**

4. The brain's "reward center," important in fueling addictive behaviors, is:
- A. Caudate nucleus/putamen.
  - B. Amygdala.
  - C. Nucleus accumbens/septum.
  - D. Pons.
  - E. Locus coeruleus.
5. Erikson's first psychosocial task of life (birth to eighteen months of age) is to:
- A. Acquire the cognitive ability for evocative memory so the infant can compare past and present and generate ideas about what may occur in the future.
  - B. Be able to generate expectations about what happens during the parents' absence and upon the parents' return.
  - C. Develop the ability to bar from consciousness those thoughts and memories associated with unpleasurable emotional experiences.
  - D. Learn that there are limits on assertive will.
  - E. Form a basic trust in others which must override mistrust.
6. What is the most common inhibitory neurotransmitter in the central nervous system?
- A. GABA.
  - B. NMDA.
  - C. Glutamate.
  - D. Serotonin.
  - E. Dopamine.
7. When a six month old infant is fretful, reaches out, and seeks proximity to a parent when an unrecognized other is nearby, the infant is experiencing:
- A. Stranger anxiety.
  - B. Separation anxiety.
  - C. Assimilation anxiety.
  - D. Accomodation anxiety.
  - E. Body damageanxiety.

**Directions: Choose the one best answer.**

8. The frontal lobes are unique in the brain in terms of normal and pathological human behavior because:

- A. There are no inhibitory neurotransmitters present in the frontal lobes.
- B. The frontal lobes are the central nervous system's site for all neuroendocrine functions.
- C. The Papez Circuit is housed within the frontal lobes.
- D. Memories are stored in the frontal lobes, free from emotional valences that might adversely affect clear judgement.
- E. The frontal lobes receive substantial input from both cerebral cortex and limbic system.

Thus, decision-making is performed with both emotional and cognitive factors.

9. Which of the following is true concerning language development during early childhood (ages 3-6)?

- A. The ability to verbalize precedes the ability to comprehend language (i.e., the child know how to say something verbally before he/she can truly comprehend what something is based on what others call it).
- B. The ability to comprehend precedes the ability to say it verbally (i.e., the child knows what something is based on what others call it before he/she knows how to say it verbally).
- C. The ability to comprehend what something is and the ability to verbalize about it develop at a parallel pace.
- D. The ability to verbalize and comprehend cannot develop until satisfactory resolution of the oedipal phase of development is completed.
- E. The ability to verbalize and comprehend language depends on mental energy provided by anxiet about retributions from the same-gender parent that occur during the oedipal phase of development.

10. Puberty is defined as:

- A. Emergence of the belief in the power of analytic thinking in planning for the future.
- B. Development of a gender identity.
- C. Emergence of an emancipated identity.
- D. Emergence of secondary sexual characteristics.
- E. Development of a rebellious attitude toward parents and other authority figures.

**Directions: Choose the one best answer.**

11. Erikson developed a conception of life-long human development that occurred across eight stages, described in terms of a series of encounters between the ego's various social senses and the developmental tasks endemic to each stage of the human life cycle. Though issues in one stage may carry forward into subsequent stages, the 8 developmental tasks are theorized to occur in a general sequence across the life cycle. For each group of 3 of the stages listed below, choose the statement that describes the CORRECT sequencing of stages as conceptualized by Erikson.

- A. Trust and mistrust -- Initiative and sense of guilt -- Autonomy versus shame and doubt.
- B. Industry versus inferiority -- Generative sense versus psychologic stagnation -- Sense of integrity versus despair.
- C. Industry versus inferiority -- Ego identity and role confusion -- Intimacy versus isolation.
- D. Intimacy versus isolation -- Industry or inferiority -- Trust and mistrust.
- E. Generative sense vs psychologic stagnation -- Initiative and sense of guilt -- Autonomy versus shame and doubt.

12. All of the following are true regarding domestic violence EXCEPT:

- A. Battered women account for one of three women seeking care for any reason in the emergency room.
- B. Until the past few years, domestic violence was generally believed to be a rare event.
- C. Medical professionals' attitudes toward potential victims of domestic violence is an important determinant of psychiatric sequelae in domestic violence victims.
- D. Women are as likely as men to be perpetrators of sexually inappropriate actions with children.
- E. 40% of all female homicide victims are killed by their husbands.

13. All of the following are aspects of cognitive maturation and development during early childhood (3-6 years) EXCEPT:

- A. Emergence of the ability to *symbolize*, to endow an object with qualities and meaning it does not inherently possess.
- B. Emergence of the ability to think analytically in planning for the future, based on the capacity for introspection, self-scrutiny, and self-awareness.
- C. The ability to remember new behaviors and imitate them at a later time (deferred imitation).

- D. The ability to form symbolic representations, combining current perceptions, emotions, and memories.
- E. Comprehend how direct behavioral gratifications of some fantasies will cause unpleasurable feelings.

**Directions: Choose the one best answer.**

14. If a genetic female (XX) fetus is exposed to excessive androgen production by malfunctioning adrenal glands in utero, adrenogenital syndrome results, leading to varying degrees of masculinization of external genitals. Androgen exposure continues after birth. All of the following are true regarding this disorder EXCEPT:

- A. External genital abnormalities can be corrected surgically.
- B. Corticosteroid treatment of the newborn infant suppresses further androgen production.
- C. Without treatment, a girl with adrenogenital syndrome will develop a masculine body build.
- D. Untreated children with this disorder will usually be raised as girls.
- E. If undiagnosed and unrecognized, assignment and rearing as a boy will lead to normal male gender identity.

15. The major developmental task during the adolescent period (ages 12-19) is to:

- A. Establish an emancipated identity that includes a sexual identity.
- B. Establish an emancipated identity then establish a sexual identity.
- C. Consolidate a sexual identity as a basis for then developing an emancipated identity.
- D. Develop a superego or conscience to better be able to conform to cultural norms and mores.
- E. Acquire a basic trust in others in order to be able to function productively and make a living in the adult world to come.

16. Within the biopsychosocial model, which of the following is NOT a primary sphere of clinical inquiry?

- A. Psychological Precipitants
- B. Social Treatments
- C. Biological Precipitants
- D. Treatment Predispositions
- E. Biological Predispositions

17. The *stria terminalis* links which two central nervous system structures that are integral to the “visceral experience” of emotion, in contrast to the “conscious experience” of emotion?

- A. Thalamus ---> Primary Sensory Cortex
- B. Hippocampus ---> Fornix
- C. Hippocampus ---> Amygdala and Locus Coeruleus
- D. Amygdala ---> Hypothalamus and Brainstem
- E. Thalamus ---> Frontal Lobes

**Directions: Choose the one best answer.**

18. You give a patient with recurrent severe headaches a narcotic analgesic prescription. She experiences a reduction in both frequency and severity of her headaches. This consequence increases the likelihood that she will take the medication again and again. This phenomenon is an example of:

- A. Fixed ratio reinforcement schedule.
- B. Operant conditioning.
- C. Systematic desensitization.
- D. Classical conditioning.
- E. Successive approximation (shaping).

19. The rate-limiting enzyme for the synthesis of dopamine and norepinephrine is:

- A. Monoamine oxidase.
- B. Cyclic AMP.
- C. Catechol-O-methyl transferase.
- D. Tyrosine decarboxylase.
- E. Tyrosine hydroxylase.

20. Which of the following is most true about infants' attachments with their parents?

- A. The amount an infant cries is the best indicator of degree of attachment problems with one or both parents.
- B. Fathers' attachment styles to infants tends to foster assimilation more than mothers' attachment styles.
- C. Mothers tend to provide more soothing-calming and enveloping interchanges with infants than do fathers.
- D. Fathers' attachments to infants is almost impossible to achieve during the first two years of life.
- E. Smiles are innately given preferentially to mothers during the first six months of life

by

infants.

21. A patient who has difficulty shifting mental processes from one concept to another most likely has a lesion or dysfunction in a:

- A. Parietal lobe.
- B. Frontal lobe.
- C. Temporal lobe.
- D. Occipital lobe.
- E. Hypothalamus.

**Directions: Choose the one best answer.**

22. Which of the following statements is true regarding separation anxiety and stranger anxiety in infants?

- A. Stranger anxiety and separation anxiety develop simultaneously in infants, at about 2 months of age.
- B. Separation anxiety is the predominant developmental anxiety from 1-2 years of age.
- C. Stranger anxiety is the predominant developmental anxiety from 1-2 years of age.
- D. There is no fundamental difference between separation anxiety and stranger anxiety.
- E. Separation anxiety usually arises before stranger anxiety.

23. The norepinephrine system in the brain arises from the:

- A. Locus coeruleus.
- B. Thalamus.
- C. Corpus callosum.
- D. Red nucleus.
- E. Substantia nigra.

24. By age 5, an average child's vocabulary should be about:

- A. 50 words.
- B. 500 words.
- C. 2,000 words.
- E. 10,000 words.
- F. 100,000 words.

25. Gradual de-idealization of both parents becomes a main focus of teenagers' relationship with his/her parents. All of the following are true regarding this de-idealization process EXCEPT:

- A. De-idealization of parents eventually leads to a more acceptable, adult-like, and human view of them.
- B. De-idealization of parents is important to attaining a sense of having an emancipated identity.



- C. The adolescent must gradually give up residual childhood wishes to have perfect and all-powerful parents.
- D. The de-idealization process is characterized by alternating patterns of idealizing and then being excessively critical of parents.
- E. The process of de-idealization of parents is inhibited by cultural and developmental pressures for teenagers to increasingly make his/her own decisions.

**Directions: Choose the one best answer.**

26. During the Eriksonian stage of life known as “a final sense of integrity or despair,” all of the following are true EXCEPT:

- A. There is reflection upon one’s life and how it has been lived.
- B. The individual who looks back on his/her life as a series of missed opportunities does not fear death because there is generally a conclusion reached that a person can’t go back in time and change things.
- C. The individual who looks back at his/her life with some satisfaction and with few regrets nourishes a sense of integrity and of having lived totally.
- D. The individual with a final sense of integrity looks at death with an attitude of acceptance rather than defeat.
- E. The past nature of an individual’s life experiences has a significant impact on how he or she negotiates this final phase of human development.

27. At what age does a person normally transition from reliance on *action dominance* (expressing wishes and feelings in behaviors) to *verbal dominance* (expressing wishes and feelings in words) to get his/her innate needs met?

- A. Ages 1-3.
- B. Ages 3-6.
- C. Ages 7-9.
- D. Ages 10-12.
- E. Ages 13-17.

28. Which of the following is true regarding menopause?

- A. Menopause for most women is a normal life event, not a focus for psychiatric problems.
- B. There are no medical consequences associated with menopause.
- C. Menopause is best thought of as an age-related developmental phase.
- D. Women experience a highly increased frequency of major depressive disorder during

- the year following menopause.
- E. Menopause causes decreased self-esteem and diminished sense of self-worth for most women.

**Directions: Choose the one best answer.**

29. In the United States, the age by which about half of teenagers have experienced sexual intercourse is:

- A. Age 9
- B. Age 12
- C. Age 15
- D. Age 18
- E. Age 21

30. A profound mismatch between sexual and gender identities which results in a persistent sense of discomfort and inappropriateness about one's anatomic sex and a persistent wish to be rid of one's genitals and to live as a member of the opposite sex is called:

- A. Sexual aversion disorder
- B. Homosexuality
- C. Transvestic fetishism
- D. Hypoactive sexual desire disorder
- E. Transsexualism (Gender Identity Disorder)

31. Prosody, an important function of the nondominant temporal lobe, is:

- A. Emotional processing for cortical input and memory.
- B. Processing of tactile and proprioceptive sensation.
- C. Linking visual processing with emotional perceptions.
- D. Temporal lobe inhibition of unconscious amygdalar responses to rage and libido urges.
- E. The emotional content of speech and communication.



**Directions: Choose the one best answer.**

32. Your physical examination and radiological tests of a 20 year-old marine recruit in his second day of basic training who complains of disabling low back pain reveals no obvious pathology or findings. He is seen walking normally around in the exam room when noone is looking. Which of the following is an incorrect course of action?

- A. Directly confront the recruit with the clinical inconsistencies and send him back to his unit with a recommendation for firm discipline.
- B. Ask the patient where he's from, what his family is like, how he came to be at boot camp, and who he left behind when he came to basic training.
- C. Review the patient's medical records to determine whether there is any past history of similar episodes.
- D. Obtain a neurological consultation to confirm no subtle neurological findings, then suggest to the recruit that the back pain will be much better within a couple of hours.
- E. Hospitalize the patient for observation and to at least temporarily remove him from the training environment.

33. Normal limbic system functions such as vigilance and scanning the environment can become pathologically exaggerated and result in the psychotic symptom of paranoia. The mesolimbic tract neurons associated with this dysfunction terminate in which kind of neuroreceptor?

- A. NMDA
- B. Acetylcholine
- C. Dopamine
- D. Norepinephrine
- E. Serotonin

34. The most powerful form of reinforcement among the following is:

- A. Variable ratio reinforcement schedule.
- B. Maximum interval reinforcement schedule.
- C. Fixed interval reinforcement schedule.
- D. Maximum ratio reinforcement schedule.
- E. Fixed ratio reinforcement schedule.

**Directions: Choose the one best answer.**

35. When dopaminergic function is disrupted in the nigrostriatal tract, which of the following clinical disorders results?

- A. Schizophrenia
- B. Parkinson's Disease
- C. Major Depressive Disorder
- D. Huntington's Disease
- E. Post-Traumatic Stress Disorder

36. The automatic redirecting of a developmentally earlier mode of thinking/behaving in order to avoid experiencing the unpleasurable feelings associated with current thinking/behaving is defined as the defense mechanism:

- A. Sublimation.
- B. Suppression.
- C. Projection.
- D. Assimilation.
- E. Regression.

37. Behavioral signs of abnormal distress in an infant include all of the following EXCEPT:

- A. Excessive crying.
- B. Pushing parents away.
- C. Turning away from parents.
- D. Seeking proximity to parents when a stranger appears.
- E. Averting gaze with parents when parents are trying to engage with the infant.

38. One class of antidepressant medications is the monoamine oxidase inhibitors (MAOIs). Their mechanism of action is to:

- A. Block presynaptic alpha-2 receptors.
- B. Block the reuptake of norepinephrine back into the neuron.
- C. Block the reuptake of serotonin back into the neuron.
- D. Prevent the metabolic breakdown of norepinephrine.
- E. Decrease CNS norepinephrine levels by blocking the actions of second messengers.

**Directions: Choose the one best answer.**

39. The average frequency of sexual intercourse among sexually active American adults 25-59 years old who are in monogamous relationships is:

- A. 4-8 times per week.
- B. 1-3 times per week.
- C. 4-8 times per month.
- D. 1-3 times per month.
- E. 4-8 times per year.

40. All of the following are true regarding late adolescence (16-19 years) sexual identity development EXCEPT:

- A. Parents, teachers, and coaches try to protect the normally developing adolescent from settings likely to result in excessive sexual stimulation.
- B. Teenagers invested already in long-term career goals and higher education experience a relative delay in the onset of sexual activity.
- C. Life-long virginity can be a moral and/or life style choice in a person with an emancipated identity.
- D. Humor is a prominent defense mechanism that develops during adolescence that can help manage the anxiety that is related to sexual tensions.
- E. During this developmental period (16-19 years) sexual activity is normally linked to developmentally expected wishes and fantasies to dominate and control the opposite sex through sexual activity.

41. An active duty supervisor mistakenly reprimands and blames the wrong person when the office produces a late operational readiness report. The wrongly blamed employee does not confront the irritable supervisor but when she gets home, yells and screams inappropriately at her children. Which psychological defense mechanism is this woman employing?

- A. Projection.
- B. Passive-aggressive behavior.
- C. Reaction formation.
- D. Displacement.
- E. Hypochondriasis.

**Directions: Choose the one best answer.**

42. Normally a child resolves his/her oedipal conflict at what age?
- A. 2-3 years of age.
  - B. 4-5 years of age.
  - C. 6-7 years of age.
  - D. 8-9 years of age.
  - E. 10-11 years of age.
43. Which of the following is true regarding psychological events during and after pregnancy?
- A. When psychological reactions become apparent during pregnancy, it almost always indicates the need to treat a major psychiatric disorder; the hormonal changes *during* pregnancy tend to precipitate them.
  - B. Suicide rates for women during pregnancy are more than twice as high as during times they are not pregnant.
  - C. The first three months postpartum are a time of increased vulnerability to serious psychiatric symptoms; e.g. postpartum major depressive disorder.
  - D. Physical abuse rates for women during pregnancy are lower than they are during periods of time they are not pregnant.
  - E. Risk for postpartum psychosis in women is highly linked to prolactin, estrogen, and progesterone levels.
44. During adolescence, each of the following statements regarding the function of the conscience as an internal regulator of behavior is true EXCEPT:
- A. Parents' rules (internalized in the conscience) become more of an influence on behavior during adolescence than they were previously.
  - B. To assist in controlling his/her behavior, the adolescent will periodically seek isolation from others for a time.
  - C. The peer group assumes an increasing role in facilitating rules for behavioral control.
  - D. Peer group rules and attitudes about dating activities become highly valued.
  - E. The conscience, if not overly critical, is an important source of self-esteem for developing adolescents.
45. All of the following are phases of the sexual response cycle EXCEPT:
- A. Excitement phase
  - B. Plateau phase
  - C. Erection phase
  - D. Orgasmic phase

E. Resolution phase

**Directions: Choose the one best answer.**

46. The functional brain area where auditory stimuli are recognized and related to stored memories is:

- A. Temporal lobe primary auditory cortex.
- B. Auditory unimodal association cortex.
- C. Motor unimodal association cortex.
- D. Primary motor cortex.
- E. Hippocampus.

47. The prominent normal developmental anxiety during the ages 3-6 is:

- A. Stranger anxiety.
- B. Separation anxiety.
- C. Sexual performance anxiety.
- D. Body damage anxiety.
- E. Superego anxiety.

48. Which of the following is an example of *negative reinforcement* in a 9 year old child?

- A. Extra weekly allowance is given when chores are completed every day that week.
- B. Allowance is withheld if chores aren't completed every day that week.
- C. Previous withholding of weekly allowance due to uncompleted chores is stopped (allowance is reinstated) when chores are completed every day that week.
- D. Weekly allowance stays the same despite threats to withhold it, even though all chores aren't completed every day that week.
- E. Weekly allowance is stopped and never restarted after a week of not doing chores.

49. The major developmental task of late childhood (ages 6/7 - 11, the "latency years"), is to:

- A. Develop a superego or conscience.
- B. Establish an emancipated identity from the family of origin.
- C. Be able to form a basic trust in others.
- D. Acquire the ability to symbolize, i.e., endow an object with qualities and meaning it does not inherently possess.
- E. Establish a peer and social identity, functioning with self-assertion and confidence in



the

world of his/her peers.

**Directions: Choose the one best answer.**

50. The percentage of adult men in the United States who report that they have had at least one homosexual experience during the preceding year is:

- A. 0% during the preceding year.
- B. 1% - 6% during the preceding year.
- C. 7% - 12% during the preceding year.
- D. 13% - 18% during the preceding year.
- E. 19% - 24% during the preceding year.

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**NOTE: For the next section of the examination:**

**Directions: For each of the statements below, one or more of the answers is correct. Choose:**

- A. If 1, 2, and 3 are correct*
- B. If only 1 and 3 are correct*
- C. If only 2 and 4 are correct*
- D. If only 4 is correct*
- E. If all are correct*



**Directions:** For each of the statements below, one or more of the answers is correct. Choose:

- A. If 1, 2, and 3 are correct
- B. If only 1 and 3 are correct
- C. If only 2 and 4 are correct
- D. If only 4 is correct
- E. If all are correct

51. Which of the following are primary functions of the parietal lobes of the cerebral cortex?

- 1. Memory “mapping” of the body’s relationship to the outside world.
- 2. Shifts attention from one activity to another as appropriate.
- 3. Processing of tactile and proprioceptive sensation.
- 4. Visual processing.

52. Which of the following innate needs is an early infant genetically programmed (innately endowed) with?

- 1. Innate need to gratify physiologic requirements that maintain bodily regulation and physical survival.
- 2. Innate need to be assertive in exploring the environment.
- 3. Innate need to attach to at least one other human being in a predominantly emotionally pleasurable relationship.
- 4. Temperament.

53. Which of the following is true regarding use of behavioral management principles in medicine?

- 1. Cigarette smoking is not amenable to behavioral treatments.
- 2. Social reinforcement is an important component of behavioral treatment of obesity.
- 3. Aversive stimuli should never be used with patients by physicians.
- 4. Illness behavior, if more strongly reinforced than wellness behavior, may persist long after an illness’s physiologic cause has disappeared.

54. Catecholamine neurotransmitters are extremely important in understanding biological predispositions, precipitants, and treatments in psychiatry and neurology. They act largely in the mesocortical, mesolimbic, and nigrostriatal tracts in the central nervous system. Which of the following are catecholamine neurotransmitters?

- 1. Dopamine.
- 2. Norepinephrine.
- 3. Serotonin.

4. Cholecystokinin.

**Directions:** For each of the statements below, one or more of the answers is correct. Choose:

- A. If 1, 2, and 3 are correct
- B. If only 1 and 3 are correct
- C. If only 2 and 4 are correct
- D. If only 4 is correct
- E. If all are correct

55. Which of the following neurotransmitters appear to have major roles in the encoding of memory?

- 1. GABA
- 2. Dopamine
- 3. Serotonin
- 4. Acetylcholine

56. Which of the following are examples of biological predispositions in the biopsychosocial model for a patient with major depressive disorder?

- 1. Past history of diabetes mellitus.
- 2. Acute renal failure.
- 3. Family history of major depressive disorder.
- 4. Overly permissive parents during the oedipal phase of childhood development.

57. Which of the following are criteria for a “classic” neurotransmitter?

- 1. It is synthesized in the neuron.
- 2. It is present in the presynaptic terminal and is released in an amount sufficient to exert a particular effect on a receptor neuron.
- 3. When applied exogenously (as drug) in reasonable concentrations, it mimics exactly the action of the endogenously released neurotransmitter.
- 4. A specific mechanism exists for removing it from its site of action, the synaptic cleft.

58. The amygdala sends major neuronal projections to which of the following brain regions?

- 1. Hypothalamus
- 2. Frontal lobes
- 3. Septum
- 4. Visual cortex



**Directions:** For each of the statements below, one or more of the answers is correct. Choose:

- A. If 1, 2, and 3 are correct
- B. If only 1 and 3 are correct
- C. If only 2 and 4 are correct
- D. If only 4 is correct
- E. If all are correct

59. The most primitive region of the brain, known as the “reptilian brain,” comprises which of the following structures?

- 1. Brainstem
- 2. Thalamus
- 3. Mid-Brain
- 4. Hypothalamus

60. Which of the following are examples of *psychological treatments* in the biopsychosocial model for a patient with panic disorder?

- 1. Electroconvulsive Therapy (ECT).
- 2. Biofeedback/relaxation training.
- 3. Discontinuation of steroid medication that caused a worsening of the panic disorder.
- 4. Cognitive-Behavioral Psychotherapy.

61. Physical symptoms and signs likely to be experienced by a patient who has excessive autonomic activity of noradrenergic neurons whose cell bodies are in the locus coeruleus include:

- 1. Cardiac palpitations.
- 2. Dilated pupils.
- 3. Shortness of breath.
- 4. Drowsiness.

62. Which of the following is true concerning gender identity and development?

- 1. Boys at some point must distance themselves from close identifications with their fathers to facilitate male gender identity development.
- 2. Children begin to develop gender identity during the first six months of life.
- 3. Gender identity is not firmly established, either anatomically and behaviorally, until the fifth year of life, during the oedipal phase.
- 4. A girl’s gender identity develops psychologically from close identification with her

mother.

**Directions:** For each of the statements below, one or more of the answers is correct. Choose:

- A. If 1, 2, and 3 are correct
- B. If only 1 and 3 are correct
- C. If only 2 and 4 are correct
- D. If only 4 is correct
- E. If all are correct

63. Following a myocardial infarction, which of the following are true concerning sexual functioning?

- 1. Sexual intercourse should be discouraged for at least six months following a myocardial infarction.
- 2. Only about half of patients who survive a myocardial infarction recover sufficiently to engage in a full range of sexual activity.
- 3. Post-MI patients who engage in sexual intercourse within one month of the infarction are at greatly increased risk of suffering a second infarction.
- 4. If a patient is able to climb one flight of stairs, he or she can engage in sexual intercourse.

64. Structures comprising “the limbic system” include:

- 1. Cerebellum.
- 2. Septal area.
- 3. Auditory association cortex.
- 4. Hippocampus.

65. During the first year of life, the following factors are important in early development of gender identity:

- 1. Parents’ appropriate gender assignment at birth (e.g., giving a culturally appropriate name associated with an infant’s visible gender).
- 2. Innate biological predisposition toward masculinization or feminization originating in fetal life.
- 3. Parental beliefs about what behavior constitutes being a boy and being a girl.
- 4. Interest in viewing opposite-sex genitals.

66. Enzymes responsible for metabolically breaking down neuropsychiatrically active catecholamine neurotransmitters include which of the following:

- 1. Catechol-O-methyl-transferase (COMT)
- 2. Dopamine hydroxylase (DAH)
- 3. Monoamine oxidase (MAO)
- 4. N-methyl-D-aspartate (NMDA)

**Directions:** For each of the statements below, one or more of the answers is correct. Choose:

- A. If 1, 2, and 3 are correct
- B. If only 1 and 3 are correct
- C. If only 2 and 4 are correct
- D. If only 4 is correct
- E. If all are correct

67. Freud identified the following stages of psychosexual development:

- 1. Oral Stage: infant uses his/her mouth to explore and learn about their bodies and the world around them.
- 2. Anal/Urethral Stage: toddler attains sensual pleasure in anal and urethral activities.
- 3. Oedipal Stage: emergence of wishes to replace the opposite-gendered parent.
- 4. Sexual Stage: first has sexual intercourse and experiences body damage anxiety.

68. Major tasks of toddlerhood (18 months -3 years) include:

- 1. Emergence of language.
- 2. Gender identity development.
- 3. Beginning to develop an autonomous identity or sense of self.
- 4. Toilet training as a social tasking.

69. Which of the following are functions of the limbic system, a part of the “paleomammalian” brain?

- 1. Aggression.
- 2. Territoriality.
- 3. Fear responses.
- 4. Feeding behaviors.

70. Which of the following occur during the emergence of the normal heterosexual “oedipal conflict”?

- 1. The heterosexual child fantasizes about having an exclusive *sexual* relationship with the opposite-gendered parent.
- 2. The emergence of a child’s wishes to replace the same-gendered (rival) parent generates both body damage anxiety and separation anxiety.
- 3. The child experiences a conflict between his/her oedipal/replacement wishes and the fear that those wishes generate.
- 4. The child’s oedipal/replacement wishes and resultant fears are a source of a child’s transient fear of monsters, large animals, and the dark.



**Directions:** For each of the statements below, one or more of the answers is correct. Choose:

- A. If 1, 2, and 3 are correct
- B. If only 1 and 3 are correct
- C. If only 2 and 4 are correct
- D. If only 4 is correct
- E. If all are correct

71. Counter-conditioning (systematic desensitization) is frequently used for patients who have phobias (e.g., pathological fear of closed spaces). Which of the following is true of systematic desensitization?

- 1. Substitutes an emotional response that is adaptive to a given situation for one that is inappropriate or maladaptive.
- 2. Uses learning principles to train the patient to substitute one behavior or cognition for another.
- 3. Targets maladaptive anxiety through the substitution of relaxation for anxiety.
- 4. Analyzes early life experiences for clues as to why a maladaptive behavior or pathological fear exists.

72. The following is true about an infant's normal mental process of "accommodation."

- 1. Accommodation is a restructuring of a pre-existing mental representation in the light of new experiences.
- 2. Accommodation is the "fitting" of a novel perception (e.g., a new person) into an existing mental representation.
- 3. Through accommodation, the infant masters a novel perception and acquires new knowledge, which creates the potential for new learning experiences.
- 4. Through accommodation, the infant learns by recognizing and acting on what is already familiar.

73. Which of the following are functions of the neocortex, also known as the "neomammalian" brain?

- 1. Sleep regulation.
- 2. Appetite.
- 3. Respiration.
- 4. Language.

**Directions:** For each of the statements below, one or more of the answers is correct. Choose:

- A. If 1, 2, and 3 are correct
- B. If only 1 and 3 are correct
- C. If only 2 and 4 are correct
- D. If only 4 is correct
- E. If all are correct

74. Which of the following are major developmental tasks of early childhood (age 3-6 years)?

1. To begin to construct a sexual identity by seeking sensual gratification from other individuals and prohibiting aspects of this gratification based on the rules of his/her family and society.
2. To begin to develop a peer identity, being able to interact and play and negotiate conflicts with other children in a peer group.
3. To begin to develop a superego or conscience by developing self-assertion abilities in choosing “good” and “bad” behaviors independent of a parent’s presence.
4. To begin to develop an emancipated identity from parents, progressively appreciating the progressive continuity of life between past, present, and future.

75. A normal child resolves his/her heterosexual oedipal conflict by:

1. Relinquishing his/her wishes to have what the same-gender parent has.
2. Becoming emotionally distant from the opposite-gender parent.
3. Reaffirming his/her identification with the same-gender parent.
4. Repressing individual autonomy and curiosity.

76. Parents’ rules for young children inevitably conflict with the child’s wishes and fantasies. Fortunately, a normal child identifies with and internalizes parents’ rules and standards of behavior when:

1. Parents avoid negative reinforcements and punishments, allowing the child to fully explore his/her physical and social environments.
2. A child develops separation anxiety or body damage anxiety when he/she begins to act on wishes to disobey.
3. Parents have children routinely experience the actual physical consequences of breaking rules and standards and behavior.
4. The child develops the capacity to experience guilt when he/she thinks about disobeying rules and standards of behavior.

**Directions:** For each of the statements below, one or more of the answers is correct. Choose:

- A. If 1, 2, and 3 are correct
- B. If only 1 and 3 are correct
- C. If only 2 and 4 are correct
- D. If only 4 is correct
- E. If all are correct

77. Which of the following is true concerning biologically or genetically based differences between men and women?

- 1. Gender is determined at conception.
- 2. More male infants die than female infants.
- 3. Gender differentiation is determined biologically by presence or absence of a y chromosome.
- 4. Female life expectancy exceeds that of males at all ages.

78. Though called the “latency phase,” the period of time between ages 6 and 11 is not devoid of sexual identity development. The following are important aspects of sexual identity development during this age range:

- 1. Responding to social pressure for boys to “act like boys” and for girls to “act like girls.”
- 2. Societal acceptance of sexual experimentation with pre-adolescent chums.
- 3. Societal communication of gender identity roles by teachers, coaches, religious leaders, and entertainment celebrities.
- 4. Focusing on having a sexually attractive appearance.

79. Which of the following is true regarding Erikson’s theory of the stages of the human life cycle?

- 1. The extent to which each stage is successfully negotiated depends on the particular nature of a person’s life experiences.
- 2. Erikson’s theory is consonant with the current view in genetics which regards personality and temperament traits as being determined by a “gene complex,” which limits the ranges of responses to life crises to a relatively narrow scope.
- 3. Individuals carry with them across the life cycle residual identities from their sociocultural pasts which have been transmitted across family generations unconsciously from one generation to another.
- 4. Erikson’s stages of development emphasize unconscious drives and mental processes more the more conscious ego functions.

**Directions:** For each of the statements below, one or more of the answers is correct. Choose:

- A. If 1, 2, and 3 are correct
- B. If only 1 and 3 are correct
- C. If only 2 and 4 are correct
- D. If only 4 is correct
- E. If all are correct

80. The normal roles of the pre-adolescent “chum” (ages 8-11) include which of the following?

1. Helps the child adopt a moral code of fairness in his/her relationships with peers.
2. Provides a chance to share guilt and shame about not living up to one’s standards, and helps a child relinquish behavior standards that are unrealistic.
3. Provides a chance to admit failures and limitations and still feel accepted and admired by one’s chum. This helps make the child less perfectionistic.
4. Provides an opportunity for two latency age children to work together through issues of rebellion versus conformity that are integral to this stage of development.

81. Which of the following is most consistent with the phenomenological approach to a patient?

1. Referring a hypertensive patient who is not compliant with medications to a psychiatrist for treatment of noncompliance while continuing to treat the hypertension.
2. Identification that a patient with ulcerative colitis has obsessive-compulsive personality traits.
3. Evaluating a disoriented ICU patient using the biopsychosocial model.
4. Diagnosing schizophrenia using DSM-IV (Diagnostic and Statistical Manual of Mental Disorders, 4th Edition) diagnostic criteria.

82. An “emancipated identity” that must be achieved before adulthood is fully underway is a self-representation that defines one’s self as:

1. Being separate and emancipated from one’s parents and significant others in the family of origin.
2. Attaining an appreciation of the progressive continuity in one’s life between past, present, and future.
3. Believing in one’s self-value while possessing individual and different points of view, ideals, and values from those of respected parents, teachers, coaches, etc.
4. Having developed the measurable somatic landmarks of secondary sexual characteristics.

**Directions:** For each of the statements below, one or more of the answers is correct. Choose:

- A. If 1, 2, and 3 are correct
- B. If only 1 and 3 are correct
- C. If only 2 and 4 are correct
- D. If only 4 is correct
- E. If all are correct

83. Aspects of human development that are significantly different for or unique to females include:

1. Menarche is a key feature of puberty with unique developmental implications for girls.
2. Culture has traditionally given more power to men than women; this has implications for how a child negotiates Erikson's phase of industry or inferiority.
3. A woman's self-esteem is more likely to be associated with maintenance of close and intimate relationships than a man's self-esteem.
4. A female child's gender identity becomes solidified much later than a male child's gender identity.

84. During early adolescence (12-15 years), the development of secondary sexual characteristics causes an initial avoidance of physical and emotional closeness with the opposite-gender parent. Reasons for and impacts of this phenomenon include:

1. Any sexual feelings toward the opposite-gender parent must be defended against until they are relinquished.
2. All adolescents must negotiate a second oedipal conflict, with the same behavioral dynamics that occurred during the first one.
3. In the process of becoming a "sexual being" and negotiating a "safe" distance with the opposite-gender parent, the heterosexual adolescent's identification with the same-gender parent becomes stronger.
4. The normal adolescent begins to masturbate frequently and delays efforts to relate to peers and become sexually interested in others.

85. Which of the following is true concerning rebellion versus conformity developmental pressures during adolescence?

1. Moderate adolescent rebellion is normal.
2. Certain people and cultures overemphasize and idealize adolescent rebellion (e.g. TV)
3. Chronic drug usage during adolescence greatly interferes with development.
4. Moderate adolescent rebellion fosters identity formation and independence.

**Directions:** For each of the statements below, one or more of the answers is correct. Choose:

- A. If 1, 2, and 3 are correct
- B. If only 1 and 3 are correct
- C. If only 2 and 4 are correct
- D. If only 4 is correct
- E. If all are correct

86. Which of the following adolescence development “ideals” predicts optimal transition from adolescence to young adulthood?

- 1. Parents, authority figures, and institutions receive the displaced blame for limitations and imperfections the adolescent must face in the pursuit of his/her life goals.
- 2. Superego anxiety, while important during latency and early adolescence, is no longer necessary to guide behaviors once the emancipation process is complete.
- 3. Unpleasant childhood memories are repressed or suppressed from consciousness so that psychological predispositions toward current behaviors and beliefs is forgotten.
- 4. Relinquishment of wishes for perfection signifies the ability to set reasonable goals with an ability to tolerate not achieving every goal.

87. The continuum(s) of temperamental behavioral styles include(s):

- 1. Extreme wakefulness to extreme somnolence.
- 2. Extreme shyness to extreme assertiveness.
- 3. Difficulty with language to ease with language.
- 4. Difficult emotional regulation to easy emotional regulation.

88. Which of the following are considered by Vaillant to be “mature” psychological defense mechanisms?

- 1. Projection.
- 2. Intellectualization.
- 3. Denial.
- 4. Sublimation.

89. Parents can help in facilitating adolescents’ formation of a separate and individual identity by:

- 1. Removing rules and prohibitions on behavior that might slow the rebelliousness inherent to the adolescent phase of development.
- 2. Encouraging the adolescent to stay involved with his/her peer group.
- 3. Positively reinforcing the teenager’s need to become independent and negatively reinforcing resurgences of his/her wishes to be dependent.

4. Being consistent in expressing their values and standards.

**Directions:** For each of the statements below, one or more of the answers is correct. Choose:

- A. If 1, 2, and 3 are correct
- B. If only 1 and 3 are correct
- C. If only 2 and 4 are correct
- D. If only 4 is correct
- E. If all are correct

90. When an adolescent with Cushing's Disease (hypercortisolism) is diagnosed with major depressive disorder, which of the following may be etiologically related?

- 1. Genetic/family propensity toward mood disorders.
- 2. Systemic and central nervous effects of abnormally high serum cortisol.
- 3. Recent divorce of his/her parents.
- 4. History of barbiturate abuse for the past year.

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**For the next ten examination questions, refer to the following case vignette.**

*You are the general medical officer at Great Lakes Naval Training Facility. A basic trainee is brought by ambulance to the medical facility's emergency room where you are on duty. The patient is an 18 year-old single white male from California in day 3 of training with no prior history of neurological or any serious medical illness who complained on awakening this morning of numbness and inability to use his entire right upper extremity. Though he fell in the shower floor the evening before, he reports no numbness, tingling or weakness in that extremity until awakening this morning.*

*Your history reveals that the young man just graduated high school and came immediately to basic training after graduation. In California, he had been an average student who enjoyed being with his friends on the beach. His father is a recently retired Navy rear-admiral whose own father was a war hero in World War II. The family's military tradition weighed heavily in the young man's decision to follow his father's advice and join the Navy prior to pursuing college.*

*There is no family history of neurological disorder or of psychiatric disorder. The patient describes his family as "basically happy," though he mentioned frequent moves necessitated by his father's Navy career. The patient describes his mother as quiet and "the perfect Navy wife," his father as strict and a disciplinarian. He has two younger sisters, both of whom are still in high school. He says he misses his friends, who are "all hanging out on the beach right now." Though he doesn't express any suicidal ideation, he admits to having trouble sleeping and poor appetite. He says he's keeping up with physical fitness activities but thinks he may have trouble concentrating on all the academic work. "I've never been a good memorizer." In any case, he is adamant that he wants to remain in basic training and the military.*

*Your physical and neurological exam reveals a subjective "glove and stocking" numbness, though your pinprick test elicits obvious discomfort. Reflexes are symmetrical and the patient uses both arms equally in hoisting himself onto and off of the examination table. There are no other physical examination or laboratory findings except a moderately dry oral mucosa and high urine specific gravity.*



**Directions:** Refer to the preceding case vignette for the answers to the following questions.

**Choose the one best answer.**

91. The patient's concentration difficulties suggest that which part of the brain may be affected, either by the fall in the shower with a blow to the head, or by the psychological stress of the situation in which he finds himself?

- A. Dominant temporal lobe.
- B. Hippocampus.
- C. Midbrain.
- D. Nondominant parietal lobe.
- E. Frontal lobes.

92. All of the following are potential *biologic precipitants* for aspects of the patient's presentation EXCEPT:

- A. Desire to remain in the military despite the fall in the shower.
- B. Dehydration.
- C. Sleep deprivation.
- D. Head trauma during the fall in the shower.
- E. Fatigue.

93. Which is the most likely formulation of this patient's case?

- A. He has an undiagnosed neurological disorder.
- B. He is malingering (consciously producing physical symptom complaints in a calculated attempt to attain specific secondary gain).
- C. His physical complaints are a face-saving way of addressing his ambivalence of wanting to please his father versus not wanting to be at basic training.
- D. His symptoms are those of an impending major psychiatric disorder.
- E. He is immature and in need of solid discipline.

94. Which basic task of development is this patient struggling with now?

- A. Trust versus mistrust.
- B. Establishment of a sexual identity.
- C. Establishment of a peer and social identity.
- D. Formation of an emancipated identity.
- E. Intimacy versus isolation.

**Directions: Refer to the preceding case vignette for the answers to the following questions.**

***Choose the one best answer.***

95. What advice might you give the parents of this patient to help him emotionally grow and develop in the future? They should:

- A. Encourage the patient to find friends different from his current peer group, who like to “hang out at the beach.”
- B. Respect the patient’s need to become more independent by encouraging continued involvement with his friends.
- C. Avoid expressing their values and standards as parents.
- D. Discourage and don’t respond to periodic resurgences in the patient’s need to express more dependence on them.
- E. Be more directive, structured, and disciplinarian in their approach to his behaviors.

96. If you conducted your medical practice using a *reductionistic* or *dualistic* model, you would be more likely than a physician using the biopsychosocial model to do each of the following EXCEPT:

- A. Consult a neurologist to look for a more obscure cause for his numbness and inability to use his right arm.
- B. Refer the patient to a psychiatrist after your negative exam.
- C. Gather a developmental history on the patient.
- D. Confront the patient about the inconsistencies in his examination.
- E. Conceptualize the case as “neuro” or “psych.”

**Directions:** Refer to the preceding case vignette for the answers to the following questions.

**For each of the statements below, one or more of the answers is correct. Choose:**

- A. If 1, 2, and 3 are correct**
- B. If only 1 and 3 are correct**
- C. If only 2 and 4 are correct**
- D. If only 4 is correct**
- E. If all are correct**

97. Which of the following are *psychological predispositions* in this case?

- 1. Strict, disciplinarian father.
- 2. Abrupt separation from family and friends.
- 3. Military tradition within the family and the father's expectation that his son would follow in his footsteps.
- 4. The patient's fall in the shower.

98. The patient's symptoms begin to resolve with his growing comfort level in the medical facility instead of the dormitory. Which of the following actions that you could take as a medical officer might *positively reinforce* the desired behavior that the unfounded symptoms not recur? In other words, how could you increase the likelihood that the presenting symptoms remain short-lived?

- 1. Send him back to duty since his symptoms are improving.
- 2. Tell him that he is going to be sent home for medical reasons even though his symptoms are improving and won't recur.
- 3. Call the patient's parents in his presence and tell them that the patient is malingering and will need to be discharged from the military for disciplinary reasons.
- 4. Tell the patient that the faster his symptoms resolve, the sooner he will be going home.

99. Reasons for sending this individual patient home rather than back to his training unit include:

- 1. Transforming negative or ambivalent feelings into physical symptoms is an "immature" psychological defense. This suggests poor baseline functioning or tremendous duress.
- 2. Further stressing this already highly stressed patient by returning him to duty may force him to call into play even less mature psychological defenses, such as delusions or projections.
- 3. The fact that his symptoms occurred so early in training (day 3) and are so reality-distorting suggest a very poor prognosis if sent back with his unresolved

ambivalence about being in the military.

4. If he has an undiagnosed neurological illness, returning him to duty might result in legal liabilities if the patient is injured in a recurrent fall or other accident.

**Directions:** *Refer to the preceding case vignette for the answers to the following questions.*

*For each of the statements below, one or more of the answers is correct. Choose:*

- A. If 1, 2, and 3 are correct*
- B. If only 1 and 3 are correct*
- C. If only 2 and 4 are correct*
- D. If only 4 is correct*
- E. If all are correct*

100. In addition to your psychological and social interventions, you consider short-term medication for treating some of the patient's acute anxiety/insomnia symptoms. Medication aiming to *facilitate* transmission in which of the following neurotransmitter systems is most likely to help the patient feel less anxious?

- 1. Dopamine
- 2. Norepinephrine
- 3. Serotonin
- 4. GABA

=====

**Directions: For each numbered item, select the one lettered choice most closely associated with it. Lettered choices may be used once, more than once, or not at all.**

Questions 101 - 109: Consider the following influences on the etiology and treatment of psychiatric illness in an adult patient.

- |   |                                      |
|---|--------------------------------------|
| 101. Dementia in an HIV-seropositive patient              | A. Biological predisposing factor    |
| 102. Family history of major depressive disorder          | B. Psychological precipitant         |
| 103. Group home for the chronically mentally ill          | C. Biological precipitant            |
| 104. High concordance rates in schizophrenia twin studies | D. Social treatment                  |
| 105. Transfer to a new command                            | E. Psychological predisposing factor |
| 106. Uncomplicated myocardial infarction                  | F. Biological treatment              |
| 107. Unexpected retirement                                | G. Social predisposing factor        |
| 108. Childhood history of sexual abuse                    | H. Psychological treatment           |
| 109. Electroconvulsive therapy                            | I. Social precipitant                |

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Questions 110 - 114: Match the following neurotransmitter characteristics with the correct neurotransmitter.

- |  |                            |
|--|----------------------------|
| 110. Tracts project to the caudate and putamen                   | A. Glutamate               |
| 111. Diffuse modulatory effect within the central nervous system | B. Norepinephrine          |
| 112. Cell bodies in nucleus basalis of Meynert                   | C. Cholecystokinin         |
| 113. Inhibitory neurotransmitter                                 | D. Dopamine                |
| 114. Projections from the prefrontal cortex to the basal ganglia | E. Neuropeptides           |
|  | F. Acetylcholine           |
|  | G. Gamma-aminobutyric acid |

**Directions: For each numbered item, select the one lettered choice most closely associated with it. Lettered choices may be used once, more than once, or not at all.**

Questions 115 - 122: Match the numbered item with the most closely associated Eriksonian psychosocial stage of development.

- |   |   |
|---|---|
| 115. A person integrates what he/she has learned about him/herself from many social roles and relationships | A. Ego Identity and Role Confusion            |
| 116. Demonstrated in newly developed powers of motor control and language production                        | B. Integrity or Despair                       |
| 117. A person develops the ability to regard another's needs and concerns as important as their own         | C. Industry or Inferiority                    |
| 118. A time of reflection on one's life   | D. Initiative and Sense of Guilt              |
| 119. Concern for and dedication to the next generation and future generations                               | E. Trust and Mistrust                         |
| 120. First two years of life  | F. Generative Sense vs Psychologic Stagnation |
| 121. Strong desire to choose the activities he/she participates in  | G. Intimacy vs Isolation                      |
| 122. Emergence of considerable motor and intellectual skills  | H. Autonomy vs Shame and Doubt                |

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***End of Examination***